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ABSTRACT

Database publishers are in a position to assist corporate users in their transition into the future by providing services which successfully integrate online systems with the larger information systems. Information is one of industry's most valuable assets. Present and future technological advancements offer the means for controlling burgeoning information and provide a competitive edge for corporations. While many corporations have already implemented sophisticated computerized information systems, a majority have not, and their transition to the future will be more gradual. Online systems offer a corporation the means for quickly identifying information, and introduce flexibility to corporate information centers, thus providing the first step to a fully integrated information system. The Congressional Information Service (CIS) has recently surveyed corporate users to determine their information needs. The results have provided CIS with a minidatabank of information profiling corporate information systems. This has brought about improvements in user training sessions, reevaluation of publisher marketing decisions, and creation of new CIS information products such as the Federal Government department breakout of the American Statistical Index. Continued mutual exchange between database publishers and corporate users will produce effective and expeditious satisfaction of corporate information needs. (RAA)

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CORPORATE INFORMATION SYSTEMS IN TRANSITION:

CALL FOR INDUSTRY RESPONSIVENESS

by

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CORPORATE INFORMATION SYSTEMS IN TRANSITION:

CALL FOR INDUSTRY RESPONSIVENESS

The social and economic impact of the information explosion has been variously compared to that of the discovery of electricity, the introduction of the Model T Ford, the development of the railroad, and the Industrial Revolution. Although there seems to be little agreement as to which analogy is most appropriate, it is apparent that our professional as well as private lives will be affected by the enormous technological advances in the dissemination of information expected in the future. These advances will alter everyday methods of international, national and inter-office communications. It is easy to see why these changes have been compared to industrial advances of the 19th and 20th Centuries. The new methods of electronic communication will have similar irreversable implications which, retrospectively, will seem to have occurred with remarkable speed and pervasiveness.

The purpose of this paper is not, however, to attempt to make major Orwellian projections regarding the implications of these inevitable changes. It is interesting to note that more than one prognosticator has concluded that tangible predictions are impossible. (This in itself may be the best indication of the gravity of the changes.) What I would like to examine are some of the developments and changes currently being experienced in the corporate information system based on research

conducted by Congressional Information Service (CIS) and illustrate one publisher's attempt to respond to these changes.

Corporate Information System

CIS is a leading indexer and micropublisher of Congressional and Federal Government publications. In May of 1979, CIS established a specific marketing department assigned to the corporate sector. Based upon recent trends and data on CIS usage, it was felt that the corporate market represented a significant market potential. It was hypothesized that the importance and comprehensiveness of the information accessed through CIS provided a natural fit between CIS products and corporate information needs. Pre-market research was undertaken during late spring of 1979 to test this hypothesis. Did indeed a "natural" fit exist?

The first step in answering this question was a careful identification of corporate information needs. At the same time, an effort was made to discern the basic trends in the current systems designed to respond to the corporate information needs. Research included searching the various reference sources and indexes (traditional and online) and collecting a bibliography of relevant books, articles and reports. Surprisingly, however, little actually had been written about the day-to-day information needs of corporations or their retrieval systems. What was uncovered was either a review of the technical data of one specific corporate department or a general conclusion that

corporations needed "everything." Ironically, it was much easier to locate futuristic projections about the office of tomorrow and its mechanized information systems. What was lacking was a current state-of-the-art review of how today's corporation organizes and disseminates its information.

Somehow in the process of anticipating the future less attention, it appears, is being given to the present. Regardless of its illusive nature, the present is still a reality which we all face. Industry literature has alerted the enduser to the imminent technological explosion, but not given enough attention to aiding corporations in their attempts to make a successful transition into the future.

Industry Survey

Methodology

The next step, at this point, was to conduct original research. Some means of gathering additional information profiling the corporate endusers and their respective information needs was required. During the past summer of 1979, the Corporate Marketing Department conducted a telephone survey of Fortune 500 corporations. Information managers and chief librarians from approximately 65 major companies were interviewed using an open-ended survey format. Approximately 15 to 20 minutes was required to complete each interview. Participants responded to 16 questions dealing with the collection, organization and dissemination of information within their respective corporations.

Although the sampling was somewhat limited, the responses to the interviews have provided useful data on "live" corporate information systems.

Results

The results of the survey have provided CIS with a mini-databank of information about the various conditions under which corporate information systems operate. Even data which supported previously published literature and research has provided new insights for CIS. It was expected, for example, that there would be a variety of organizational structures utilized in the management of corporate information systems. The survey bore out this expected structural variety. It was possible, however, even with a limited sample of 65 responses, to observe several trends. The survey data showed that corporate information centers or libraries report to the various departments according to the following percentage breakdowns:

Department	Percentage
Administrative Services	34%
Research & Development	29%
Corporate Planning	8%
Other	29%

The large "Other" category reflects the high degree of variation. Nevertheless, 63% of the corporations surveyed organized their information functions within either the Administrative Services or the Research and Development departments. This additional

information has proven useful in planning corporate marketing activities.

In general, the survey data has provided CIS with the latest documentation on recent corporate information trends. One survey question dealt with corporate reliance on online systems. Respondents were asked to estimate what percentage of their information requests were being met through online database retrieval systems. The composite response was that online systems were utilized in answering corporate questions 59.5% of the time. There has been a dramatic growth in corporate reliance on this mechanical information retrieval system. Many respondents indicated as high as a 95% reliance on online systems. It is easy to see from this data that technology is being assimulated within corporate information systems.

The online use survey question, in many cases, sparked a conversation on the corporate use of traditional print copy indexes in addition to online retrieval. It is interesting to note from the opinions expressed by CIS users that they felt that the online systems complemented the hard copy product. Further analysis indicated that the most active corporate online users of CIS databases also maintained subscriptions to the print copy. Users pointed out that online time is minimized through the use of print copy indexes and abstracts. The printed indexes are used as preparatory material in designing online searches. The printed abstracts are used to refer to publications

cited during the search. This, of course, has been extremely important information for marketing within the corporate sector. Needless to say, this information has also helped to reduce the anxiety of migration experienced by all database publishers.

A significant portion of the survey was devoted to the identification of the types of information most frequently requested by endusers. This was, as expected, a broad area of questioning. Fifty percent of the respondents indicated that information requests covered the "whole gamut." Like the data on the organization of information centers, certain trends were, nevertheless, discernable. The most frequently heard responses included market research, economic forecasts, industry specific data, and general sales information. Time was often expressed as a critical factor in locating the needed information. Information managers seem to be in a type of "hot seat" in which they must frequently respond to critical information needs.

The data on information needs of corporations has subsequently been very handy when preparing in-house corporate training sessions for online users. Management level endusers are encouraged to attend these sessions as efforts are made to show how their needs can be matched with specific information covered in the databases. Having a clearer understanding of what types of information are requested most often by endusers has aided CIS in demonstrating the most effective use of their databases.

Another area covered by the survey was the use of micrographic copies of documents within corporations. Ninety-seven percent of respondents indicated that they were currently using either microfiche or microfilm. The enduser acceptance of this document form varied, however. Many respondents indicated that they actively promote microfiche/microfilm use and that this has helped improve user acceptance. Generally speaking, users still prefer paper copy and tend to resist alternative forms.

Several librarians indicated they felt that the acceptance of micrographics was a function of the age of the enduser. Because of their experience with fiche while students, younger users demonstrated a greater acceptance. Information managers expressed no particular professional preference for fiche or paper copy. It was often repeated that both offer distinct advantages. With fiche, the major advantage indicated was space. The paper copy is preferred for either recent publications, such as magazines and reports, or publications which are consulted on a frequent basis.

Probably the most important information collected regarding corporate information systems has to do with an understanding of the organizational problems which many face. Unlike other aspects of corporate growth, information centers are frequently unplanned additions within the corporate structure. Corporations typically have several libraries which are assigned specific research functions. These functions often overlap. In addition

to these recognized libraries, small unofficial information centers exist throughout the company. These unofficial information centers may be within a specific department or may be left over from a completed research project. The important factor to remember is that these libraries often operate independently. Corporate efforts to coordinate information activities can vary dramatically. It has been not unusual to hear of libraries within the same building which were totally unaware of each others' activities. There is sometimes almost a sense of competition between these libraries. Several librarians pointed out that attempts to coordinate and integrate library functions are sometimes seen by management as contrary to an established corporate policy of decentralization of controls and decision making.

Marketing Implications

The process of conducting original pre-market research has resulted in valuable marketing information. Data collected during the past summer has been consulted frequently prior to various marketing projects. Probably more important than the actual data though has been the interactive exchanges of ideas and concepts experienced during the survey. Due to the open-ended structure of the survey, respondents were able to expand or abbreviate their remarks according to their reactions. In general, most responded to questions in a relaxed, candid manner. Making certain that the telephone survey did not interrupt

the respondent's normal business activities (and calling back, when necessary) seemed to have conveyed a general respect for the interviewee's time and created a confortable format for exchange. Respondents appeared anxious to cooperate and provide any information necessary for improving communications between database users and publishers.

The many brief asides offered during the interview created an awareness of not only the various corporate information trends, but also developments within professional associations which serve the information managers and librarians. As a result of the telephone survey contacts, CIS has been invited to make presentations and offer training to a variety of information related groups and organizations.

Where necessary, the data collected has caused CIS to reevaluate established marketing decisions. The reactions and opinions of CIS users have had a tangible impact on CIS marketing policy. Due to users' objections, for example, the CIS Deposit Account requirement was dropped. This is a $100 deposit established by the users against which microfiche orders are debited. It was realized while talking to users that this Deposit Account requirement often presented a problem. Many corporations resisted ordering microfiche because they did not want to commit $100 to a Deposit Account when documents were only needed infrequently. (Prior to the policy revision, only prepaid orders were accepted.) This meant a critical delay when

ordering documents as check requests often require a full week to be processed within large corporations. The Deposit Account requirement was, therefore, dropped. Although the Deposit Account is still recommended for frequent ordering of CIS microfiche, individual mail or telephone orders may now be accepted. A $5.00 shipping and handling fee is charged for non-deposit and non-prepaid microfiche orders, allowing the order to be processed and in the mail within 24 to 48 hours of receipt. The new policy has helped reduce the vital turn-around time on information requests and helped corporations meet information needs more quickly. Users have responded well to this policy revision.

Since a number of respondents indicated that certain endusers resist microfiche copies of publications, CIS is currently investigating the possibility of offering a paper copy service when ordering documents. This would provide an alternative for companies which have not made a major micrographic commitment or find paper copy of a particular publication more convenient. CIS is considering the introduction of this service sometime this year.

The survey data has also resulted in the creation of a new CIS product. During the summer of 1980, CIS will introduce a Federal Government department breakout of its American Statistics Index (ASI). This will be a separately published index and abstracts volume for approximately 15 Federal agencies and

departments. This new service has been designed to respond to the various corporate information structures. It provides an alternative for the frequently decentralized corporate information system. They may now subscribe to a subset of a larger index collection which is targeted to their specific information needs.

Conclusions

It has been said that information is one of industry's most valuable asset. Certainly in the 1980s and subsequent years, information will grow in importance as we move into a post-industrial era of intense business competition. Present and future technological advances offer the means for controlling burgeoning information and provide a competitive edge for corporations. There are many corporations which have already implemented sophisticated computerized information systems and are at the forefront of technology. The majority of companies have not reached this level of sophistication, however. Their transition into the future will be more gradual.

In many cases, online systems, although only part of today's information technology, represent corporations' first step in developing a fully integrated corporate information network. Online systems offer corporations an important new means for quickly identifying needed information. Computerized information retrieval has introduced an exciting flexibility to corporate information centers.

Today's publishers must assist corporations in their transition into the future by providing services which successfully integrate online within the larger information system. Through the development of new services and products, publishers can provide support for today's corporate information needs as well as provide the flexibility for future technological advances.

Through the cooperative efforts of database publishers and users, information needs can be satisfied expeditiously and effectively. What is called for is a continued mutual exchange of information and ideas as a means of understanding information needs, present and future.